

Life habits of hypertensive elderly men

Hábitos de vida de homens idosos hipertensos

Hábitos de vida de hombres ancianos hipertensos



Marcos Vinicius de Araújo Cavalcanti^a
 Luciane Paula Batista Araújo de Oliveira^b
 Anna Cecília Queiroz de Medeiros^b
 Rafaela Carolini de Oliveira Távora^b

How to cite this article:

Cavalcanti MVA, Oliveira LPBA, Medeiros ACQ, Távora RCO. Life habits of hypertensive elderly men. Rev Gaúcha Enferm. 2019;40:e20180115. doi: <https://doi.org/10.1590/1983-1447.2019.20180115>.

ABSTRACT

Objectives: To identify the habits of life in elderly hypertensive men of the city of Currais Novos/RN; correlate life habits and presence of comorbidities.

Methods: An exploratory and descriptive, quantitative study with a sample of 136 elderly hypertensive patients. Data collection took place from August to October 2016, through the structured interview technique. Descriptive and inferential analysis was performed using the Statistical Package for the Social Sciences 20.0.

Results: Most of them reported practicing physical activity (52.9%), seeking health services (82.4%), having healthy eating (94.9%), denying smoking (91.2%) and alcoholism (77.9%). The most frequent comorbidity was diabetes (17.6%).

Conclusions: Most participants reported having healthy life habits, which they believe influence on disease control. Among the investigated parameters, only the habit of not smoking was associated with the absence of hypertensive peaks; the other habits did not present statistical association with the comorbidities.

Keywords: Health of the elderly. Hypertension. Primary health care. Men's health. Aging.

RESUMO

Objetivos: Identificar os hábitos de vida em homens idosos hipertensos da cidade de Currais Novos/RN; correlacionar hábitos de vida e presença de comorbidades.

Métodos: Estudo exploratório e descritivo, quantitativo, com amostra de 136 idosos hipertensos. A coleta de dados aconteceu em Currais Novos/RN, de agosto a outubro de 2016, pela técnica de entrevista estruturada. Realizada análise descritiva e inferencial utilizando o Statistical Package for the Social Sciences 20.0.

Resultados: A maioria referiu praticar atividade física (52,9%), procurar serviços de saúde (82,4%), ter alimentação saudável (94,9%), negou tabagismo (91,2%) e etilismo (77,9%). A comorbidade mais frequente foi diabetes (17,6%).

Conclusões: Os participantes, em sua maioria, relataram ter hábitos de vida considerados saudáveis, o que acreditavam influenciar no controle da doença. Dentre os parâmetros investigados, apenas o hábito de não fumar foi associado à ausência de picos hipertensivos; os demais hábitos não apresentaram associação estatística com as comorbidades.

Palavras-chave: Saúde do idoso. Hipertensão. Atenção primária à saúde. Saúde do homem. Envelhecimento.

RESUMEN

Objetivos: Identificar los hábitos de vida en hombres ancianos hipertensos de la ciudad Currais Novos/RN; correlacionar hábitos de vida y presencia de comorbidades.

Métodos: Estudio exploratorio y descriptivo, cuantitativo, con muestra de 136 ancianos hipertensos. La recolección de datos ocurrió de agosto a octubre de 2016, por la técnica de entrevista estructurada. Se realizó un análisis descriptivo e inferencial utilizando el Statistical Package for the Social Sciences 20.0.

Resultados: La mayoría refiere practicar actividad física (52,9%), buscar servicios de salud (82,4%), alimentación sana (94,9%), niegan el tabaquismo (91,2%) y el etilismo (77,9%). La comorbilidad más frecuente fue diabetes (17,6%).

Conclusiones: La mayoría de los participantes mencionan tener hábitos de vida considerados saludables, lo que creen influir en el control de la enfermedad. Entre los parámetros investigados, sólo el hábito de no fumar fue asociado a la ausencia de picos hipertensivos; los demás hábitos no presentaron asociación estadística con las comorbidades.

Palabras clave: Salud del anciano. Hipertensión. Atención primaria de salud. Salud del hombre. Envejecimiento.

^a Casa de Saúde São Lucas. Natal, RN, Brasil.

^b Universidade Federal de Rio Grande do Norte (UFRN). Faculdade de Ciências da Saúde do Trairi (FACISA). Santa Cruz, RN, Brasil.

■ INTRODUCTION

Epidemiological studies demonstrate that the Brazilian population undergoes a rapid aging process. Data from the Brazilian Institute of Geography and Statistics (IBGE) indicate that the total Brazilian population in 2018 is 208,494,900 people, of which 5.94% correspond to the share of elderly men. It is also possible to observe that, despite an increase in the last decades, the man still has a lower life expectancy in relation to the women, being that of 72.74 years of age, while the one of the women is of 79.80 years old⁽¹⁾.

With increasing numbers of elderly people in the country, chronic noncommunicable diseases (CNCDs) tend to increase, including systemic arterial hypertension (SAH).

In Brazil, there are 36 million adults with a diagnosis of SAH, of which more than 60% are elderly, contributing directly or indirectly to half of the deaths due to cardiovascular disease (CVD)⁽²⁾.

To prevent the occurrence of this and other chronic diseases or their worsening, for those already diagnosed, the adoption of healthy habits should happen from youth, and include a balanced diet – with reduced consumption of foods rich in fat and/or salt –, control of body weight, combat to sedentarism, alcoholism and smoking⁽²⁾.

Recent studies have shown that high alcohol consumption, smoking, dyslipidemia, waist circumference and Body Mass Index (BMI) are associated with the occurrence of cardiovascular diseases⁽³⁻⁴⁾.

In addition to adopting healthy habits, it is necessary to seek health services and, in this study, the importance of Primary Health Care (PHC) services such as the Family Health Strategy (ESF) stands out because they work in the promotion of health and prevention of injuries through multiprofessional work of their teams.

It is observed that men, in addition to being more sedentary, start drinking alcohol earlier and tend to drink more; In addition, they seem to care less about health care, seeking service only in case of illness, when compared to women, which has already been verified in studies of other authors⁽⁵⁾. Therefore, more health-related harm arises, making it necessary to understand social, cultural and institutional barriers to promote men's access to these services⁽⁵⁾.

The focus of the National Policy on Integral Attention to Human Health (PNAISH) - approved in 2009 and still in force - is to prioritize primary prevention measures for men to minimize health problems. This male refusal to care for health professionals in PHC raises government expendi-

tures, in addition to the physical and emotional distress of the patient and his family⁽⁶⁾.

It should be emphasized that, based on the principle of territorialization, the Primary Care/Family Health should be responsible for the health care of all the elderly people who are in their area of coverage, including those in public or private institutions⁽⁷⁾.

At this level of attention, professionals should see the consultation of the elderly as a broad opportunity to strengthen the bond, health education, multidimensional evaluation, early identification of frail or fragile elderly, health status monitoring, among others⁽⁸⁾.

It is possible to perceive that it is urgent to adopt new proposals that allow the promotion of health care among elderly men. Therefore, it is relevant to understand the reality of this population, to stimulate the participation of elderly men in health services, as well as to implement strategies for adherence to healthy living habits, to minimize the health, increasing their life expectancy and bringing greater and better use of old age.

In this study, healthy habits were those related to modifiable risk factors in the control and prevention of hypertension, according to the Brazilian Guidelines on Hypertension⁽²⁾, namely: abstaining from smoking and/or drinking, practicing exercise and maintaining a balanced diet.

This scenario led us to seek studies that would bring information about the life habits of elderly men diagnosed with SAH, living in cities in the interior of the Brazilian Northeast. However, a gap was found in the knowledge, considering the occurrence of only studies that related habits of life with: depression in the elderly⁽⁹⁾; quality of life⁽¹⁰⁾; sociodemographic profile in the South of Brazil⁽¹¹⁾; eating habits⁽¹²⁾.

In view of the above, the present study questions: What are the lifestyle habits of hypertensive elderly in the city of Currais Novos and its correlation with the presence of comorbidities?

It is believed that healthy life habits contribute to a better health status of elderly hypertensive men and that unhealthy habits are associated with a greater presence of comorbidities in the elderly man.

Thus, this study - coming from a monograph⁽¹³⁾ - had as objectives to identify the life habits in elderly hypertensive men of the city of Currais Novos/RN; correlate life habits and presence of comorbidities.

■ METHOD

This is an exploratory and descriptive research of a quantitative nature carried out in the municipality of Cur-

rais Novos, in the Seridó region of the State of Rio Grande do Norte (RN), specifically in the family health unit of the Manoel Salustino neighborhood, which has two Family Health teams with a total of 11 micro areas.

The population was composed of elderly individuals, aged over 60 years, male residents of an area assigned to the unit.

The sample was calculated based on the male elderly population enrolled in the Hiperdia program of the Family Health Strategy Unit (ESF) in the Manoel Salustino neighborhood, of which 211 were in total. Considering a 95% confidence interval and a sample error of 5%, we used the *online* tool of Creative Research Systems⁽¹⁴⁾, through which a sample of 136 elderly people was reached.

As inclusion criteria, the following were adopted: having a diagnosis of hypertension and being enrolled in the Hiperdia program. We excluded those who did not have enough cognitive capacity to respond to the research instrument, which was verified by applying the verbal fluency test by semantic categories⁽⁸⁾, which consists of asking the elderly person to verbalize as many animals as possible in a minute, with an expected score of 14 or 15 animals. This test acts as a screening tool to assess cognitive ability in the elderly.

The study followed the requirements defined by Resolution 466 of December 12, 2012, of the National Health Council, based on the principles of ethics and bioethics and the collection was initiated only after favorable opinion nº 1,595,882 of the Ethics Committee in Research of the Faculty of Health Sciences of Trairí (CEP FACISA), Federal University of Rio Grande do Norte (UFRN). After being clarified about the objectives of the research, those who agreed signed the Free and Informed Consent Form (ICF), confirming the interest in participating. This same document clarified that the names of the participants would be kept confidential. The form for each participant was given a sequential number that would be adopted in the Excel worksheet in which the database was organized in the survey.

The data collection took place from August to October 2016, and the technique used was the structured interview, that is, the one with closed questions with answer options, a technique widely used in quantitative research. To do so, the instrument of collection adopted consisted of a form containing closed questions produced by the research team.

To reach answers to the objectives of the study, the form questioned the following habits of life: physical activity; smoking; consumption of alcoholic beverage; demand for health services; healthy eating; health problems; need

for help to take care of one's own health; use of medications; history of hypertensive spikes; control, according to their self-assessment. All these questions had the following fields for answer: yes, no, sometimes (partially). When the answer was "yes" or "sometimes", frequency was questioned, and there was also a field for observations - physical activity modality, for example.

The collection was carried out by the first author, at the time student of the last year of the nursing course and, currently, a nurse in a private hospital located in the capital of Rio Grande do Norte.

Considering that one of the questions on the form related to the value of systolic and diastolic blood pressure (SBP and DBP), all participants were submitted to blood pressure measurement at the beginning of the interview, following the technique recommended by the 7th Brazilian Hypertension Directive Arterial⁽²⁾.

During collection, subjects were exposed to a minimal risk of embarrassment or discomfort like conducting a consultation, since they had questions related to their state of health.

The data collected were organized in a spreadsheet of Microsoft Excel 2010 and, to avoid errors in the data processing, the completion was carried out and conferred by two people.

This information was then transported to the *software* Statistical Package for the Social Sciences (SPSS), version 20.0, to go through a descriptive analysis - measuring the frequencies, means, standard deviation - and inferential, in which statistical tests were applied, seeking a relation between variables referring to the habits of life of the hypertensive elderly.

■ RESULTS

The 136 participants in this study were all men, elderly, hypertensive, living in the city of Currais Novos, RN, most of whom were Catholics, whites, retirees and with an income of between 1 and 2 minimum wages (SM). Blood pressure, as measured by the investigator at the beginning of each interview, ranged from 100 to 180 mm Hg in SBP and from 60 to 100 mm Hg for DBP. The time of diagnosis by these participants varied from 1 to 40 years. The averages of these variables will be presented in table 1.

On other comorbidities besides SAH, the most common was Diabetes Mellitus, followed by other cardiovascular and osteoarticular diseases. Knowing that the frequency of these diseases may be related to race and occupation, for example, the frequency of these conditions was also investigated.

Table 1 – Characterization of participants regarding age, schooling, income, blood pressure, diagnosis of hypertension, physical activity, smoking and drinking (n=136). Currais Novos/ RN, Brazil. 2016

Characteristics	Average	Standard Deviation
Age (years)	71.9	6.46
Schooling (years)	3.29	2.77
Income (in Minimum Wages)	1.88	0.67
Systolic BP (mmHg)	126.8	17.9
Diastolic BP (mmHg)	80.5	11.0
Diagnosis of HAS (years)	8.04	6.55
Physical activity (days per week)	3.74	1.18
Smoking (cigarettes/day)	8.67	2.42
Alcohol Consumption (days per week)	1.83	1.34

Source: Research data, 2016.

Table 2 - Characterization of participants regarding religion, color/race, occupation, another health problem and what the problem was (n=136). Currais Novos/ RN, Brazil. 2016

Variables	Frequency %	N
Religion		
Catholic	81.6	111
Evangelical	13.2	18
No religion	13.7	05
Others	1.5	02
Total	100%	136
Color/Race		
Caucasian	63.2	86
Mixed	23.5	32
Black	13.2	18
Total	100%	136
Occupation		
Retired	80.1	109
Pensioner	11.0	15
Farmer	0.7	01
Businessman	2.2	03
Others	5.9	08
Total	100%	136
Another health problem		
Yes	49.3	67
No	50.7	69
Total	100%	136
Comorbidity		
Cardiovascular diseases	12.5	17
Diabetes	17.6	24
Osteoarticular Diseases	10.3	14

Others	8.8	12
None	50.7	69
Total	100%	136

Source: Research data, 2016.

The interviewees had a reasonable adherence to the practice of physical exercises and were also questioned about the frequency with which they performed physical

activity, besides smoking, alcohol consumption and search for health service.

Table 3 – Participants' distribution of life habits (n=136). Currais Novos/ RN, Brazil. 2016

Variables	Frequency %	N
Performs Physical Activity		
Yes	52.9	72
No	47.1	64
Modality of physical activity		
Walking	86.3	62
Bodybuilding	4.1	3
Cycling	6.8	5
Others	2.7	2
Search the health service		
Yes	82.4	112
No	17.6	24
Smokes		
Yes	15.1	12
No	91.2	124
Alcohol		
Yes	36.8	30
No	77.9	106
Healthy eating		
Yes	94.9	129
No	5.1	7
Needs help		
Yes	8	11
No	91.9	125
Use of Medications		
Yes	96.4	131
No	3.7	5
Hypertensive Peaks		
Yes	40.4	55
No	59.6	81
Controlled Pressure		
Yes	97.8	133
No	2.2	3

Source: Research data, 2016.

Statistical tests were carried out to identify the relationship between variables. For this, Spearman's correlation coefficient was used, which showed no association between life habits and the presence of comorbidities for this sample.

On the other hand, it was possible to find a negative association between age and DBP, and between age and schooling, so that the older the age, the lower the DBP and schooling. It was also identified a positive correlation between schooling and income and between age and income, so that, the higher the schooling and age, the higher the income, being these directly proportional.

In addition, the Chi-Square test demonstrated an association between not having hypertensive peaks and the

habit of not smoking, that is, among those who said they had no peaks, few were smokers, a valuable finding that reinforces the importance of discontinuing this habit to prevent HBP complications.

Table 4 – Associations between PAD variables, schooling and income (n=136). Currais Novos/ RN, Brazil. 2016

Variables	Age	Schooling
PAD	.001	-
Schooling	.001	-
Income	.009	.004

Source: Research data, 2016.
*p<0.05

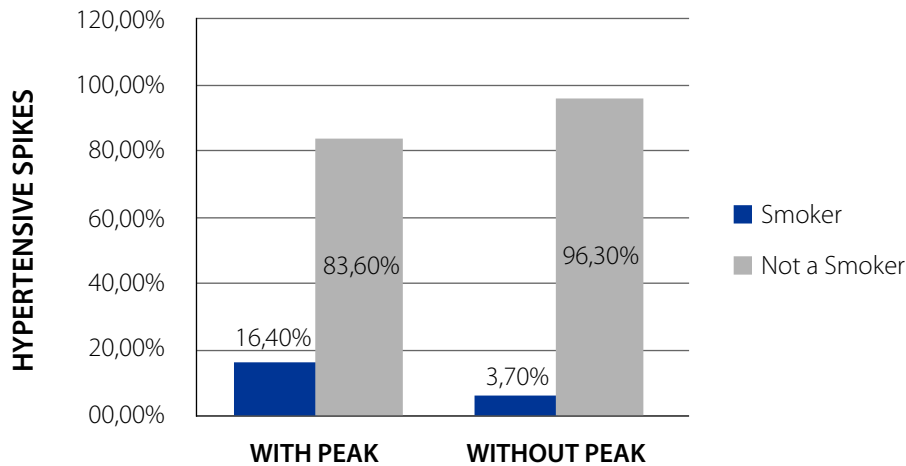


Figure 1 - Representation of association between having hypertensive peaks (n=55), not have hypertensive spikes (n=81) and smoking, from the test Chi-Square. Currais Novos/ RN, Brazil. 2016

Source: Research data, 2016.
Chi-square test with significance level lower than 0.05 (p < 0.05).

■ DISCUSSION

SAH is a serious public health problem and its prevalence is associated with aging, something notorious in Brazil, in view of the aging tendency of the population⁽²⁾.

According to the 7th Brazilian Arterial Hypertension Guideline, the mean arterial blood pressure values were classified as prehypertension, characterized by SBP between 121 and 139mmHg and/or DBP between 81 and 89 mmHg, which is a higher risk for the development of cardiovascular complications when comparing with subjects with normal blood pressure⁽²⁾.

The knowledge of the levels of SAH is of great importance with respect to the planning of the therapeutic resources, as well as in the evaluation of the measures adopted by the user⁽¹⁵⁾, therefore, it is reinforced here the need

to recommend to the users that they seek the constant monitoring in the health units.

There is a direct relationship between blood pressure and age, since, until age 60, SBP and DBP levels tend to increase, in contrast, after that age DBP begins to decrease⁽²⁾, which corroborates with the results of this study.

From the survey data, it was observed that abstention to smoking significantly influenced the non-occurrence of hypertensive peaks, emphasizing the importance of abstaining or reducing smoking as a form of control of pressure values and consequent increase of an expectation of health of the population.

The prevalence of smoking in Brazil fell from 15.6% in 2006 to 10.8% in 2014. However, the age group with the most discreet reduction was that of people over 65 years of age, pointing out the need to reinforce actions to com-

bat or reduce smoking for this public⁽¹⁶⁾.

It is possible to observe that hypertension as well as other chronic diseases can be triggered by modifiable risk factors, such as smoking, alcohol consumption, sedentary lifestyle and inadequate diet⁽¹⁷⁾.

The high frequency of chronic diseases, characteristic of the epidemiological transition in Brazil, makes the analysis of life habits more relevant of the elderly population, especially men who, when compared to women, seek health services less. The adoption of healthy habits is important in all age groups, especially among the elderly, since it can prevent and control the progression of diseases, favoring a better quality of life.

Men tend to seek less health care and one of the reasons given is the clash of hours between services versus work hours⁽⁵⁾. Old men, compared to the younger ones, have a high demand for health services - evidenced in the present study by 82.4% of the elderly who reported seeking care - which may be related mainly to the increase in the prevalence of chronic diseases, as well as some disabilities⁽⁵⁾.

Nonadherence to treatment and the presence of comorbidities are risk factors for the development of target organ lesions in hypertensive individuals, which reinforces the importance of preventing complications⁽¹⁸⁾.

It is necessary to follow up on this public, to develop measures that can control the SAH and minimize the risks to which they are exposed, using multiprofessional actions that favor the construction and strengthening of bond with the public which is present, aiming to improve the care and adherence to actions of health promotion and prevention of chronic diseases.

As a member of the health team, it is possible to emphasize that the nurse assumes responsibility for the actions of care for health promotion and prevention of risks and injuries, as well as acts in the search for control and monitoring with respect to the hypertensive user⁽¹⁹⁾, which is, in fact, studied through the Hiperdia program.

It is possible to observe the need for health care for the elderly population to promote health and prevent aggravations, with the main aim being to maintain functionality and autonomy, as well as an active and healthy aging⁽⁹⁾.

In this sense, it is important to emphasize that health promotion strategies are those that make it possible to develop autonomy and strengthen political and social processes⁽²⁰⁾, allowing the subject to have an active participation in the decisions about how to take care of oneself, of the family or group in which it is inserted.

Health Promotion consolidates in the ESF reinforcing the principles of the Unified Health System, especially that of integrality in health care and social participation, some-

thing that should be stimulated by health professionals in caring for users, especially those with the characteristics presented in this study.

■ CONCLUSIONS

Based on the information acquired through the research, it was possible to identify the life habits of hypertensive elderly in a neighborhood located in the city of Currais Novos, RN.

It was found that these elderly people were able to live independently and actively in the community, despite having a chronic illness, low monthly income and low educational level, which are social determinants of health, according to the literature used, influence the occurrence of diseases and their risk factors in the population, and may be barriers to a healthy life among the elderly.

Although PNAISH points out that men seek health care less than women, the elderly in this study say they used to do so. Few were smokers and drinkers, and most said they had a balanced diet and made use of daily medications. Although no statistical association was found between these variables, and between hypertension and the onset of comorbidities, it is understood that these factors contribute to the control of blood pressure values.

The fact that he is not a smoker was strongly related to the non-occurrence of hypertensive spikes, which reinforces the recommendation that smoking abstainers favor health status and, thus, may reduce the search for emergency services by this population. The results obtained strengthen the production of scientific knowledge of nursing and other professions in the health area and will be used in the elaboration and updating of classes, being added to the references of the subjects of the Nursing course of which the authors of this study are part.

■ REFERENCES

1. Instituto Brasileiro de Geografia e Estatística (BR). Projeção da população do Brasil e das unidades da Federação – 2018 [Internet]. Brasília (DF); 2018 [cited 2018 Aug 28]. Available from: <https://www.ibge.gov.br/apps/populacao/projecao/index.html>.
2. Malachias MVB, Souza WKS, Plavnik FL, Rodrigues CIS, Brandão AA, Neves MFT, et al. 7ª Diretriz Brasileira de Hipertensão Arterial. *Arq Bras Cardiol*. 2016 [cited 2017 nov 22];107(3 Supl. 3):1-83. Available from: <http://www.scielo.br/pdf/abc/v107n3s3/0066-782X-abc-107-03-s3-0049.pdf>.
3. Teston EF, Cecilio HPM, Santos AL, Arruda GO, Radovanovic CAT, Marcon SS. [Factors associated with cardiovascular diseases in adults]. *Medicina*. 2016 [cited 2018 Aug 28];49(2):95-102. Portuguese. Available from: <http://revista.fmrp.usp.br/2016/vol49n2/A01-Fatores-associados-as-doencas-cardiovasculares-em-adultos.pdf>

4. Carvalho CJ, Marins JCB, Amorim PRS, Fernandes MF, Reis HHT, Sales SS, et al. [High rates of physical inactivity and cardiovascular risk factors in patients with resistant hypertension]. *Medicina*. 2016 [cited 2018 Aug 28];49(2):124-33. Portuguese. Available from: <http://revista.fmrp.usp.br/2016/vol49n2/A05-Altas-taxas-de-Sedentarismo-e-fatores-de-risco-em-hipertensos.pdf>.
5. Levorato CD, Mello LM, Silva AS, Nunes AA. Fatores associados à procura por serviços de saúde numa perspectiva relacional de gênero. *Cienc Saúde Coletiva*. 2014;19(4):1263-74. doi: <https://doi.org/10.1590/1413-81232014194.01242013>.
6. Ministério da Saúde (BR), Secretaria de atenção à saúde, Departamento de Ações Programáticas Estratégicas. Política Nacional de Atenção Integral à Saúde do Homem: princípios e diretrizes. Brasília (DF): Ministério da Saúde; 2009 [cited 2016 Feb 12]. Available from: http://www.unfpa.org.br/Arquivos/saude_do_homem.pdf.
7. Ministério da Saúde (BR), Secretaria de Atenção à Saúde, Departamento de Atenção Básica. Envelhecimento e Saúde da Pessoa Idosa. Brasília (DF): Ministério da Saúde; 2006 [cited 2016 May 15]. *Cadernos de Atenção Básica*, 19. Available from: http://189.28.128.100/dab/docs/publicacoes/cadernos_ab/abcd19.pdf.
8. Silva KM, Santos SMA. A consulta de enfermagem ao idoso na estratégia de saúde da família: desafios e possibilidades. *Cienc Cuid Saude*. 2014 [cited 2016 May 17];13(1):49-57. Available from: http://periodicos.uem.br/ojs/index.php/CiencCuidSaude/article/view/20128/pdf_112.
9. Lopes JM, Fernandes SGG, Dantas FG, Medeiros JLA. Association between depression and sociodemographic characteristics, quality of sleep and living habits among the elderly of the Northeast of Brazil: a cross-sectional population based study. *Rev Bras Geriatr Gerontol*. 2015;18(3):521-31. doi: <https://doi.org/10.1590/1809-9823.2015.14081>.
10. Pereira DS, Nogueira JAD, Silva CAB. Quality of life and the health status of elderly persons: a population-based study in the central sertão of Ceará. *Rev Bras Geriatr Gerontol*. 2015;18(4):893-908. doi: <https://doi.org/10.1590/1809-9823.2015.14123>.
11. Luz EP, Dallegiane LB, Kirchner RM, Silva LAA, Silva FP, Kohler J, et al. Sociodemographic profile and lifestyle of the elderly population in a city in northern Rio Grande do Sul state, Brazil. *Rev Bras Geriatr Gerontol*. 2014;17(2):303-14. doi: <https://doi.org/10.1590/S1809-98232014000200008>.
12. Oliveira VTL, Santos ESS, Medeiros NNA, Ribeiro AA, Pessoa MTG. [Sociodemographic profile and lifestyle habits of elderlies with hypertension]. *Rev Bras Ci Saúde*. 2017;21(1):59-66. Portuguese. doi: <https://doi.org/10.4034/RBCS.2017.21.01.08>.
13. Cavalcanti, MVA. Hábitos de vida de idosos hipertensos em município do Seridó/Rio Grande do Norte [monografia]. Santa Cruz (RN): Curso de Enfermagem, Faculdade de Ciências da Saúde do Trairi, Universidade Federal do Rio Grande do Norte; 2016.
14. Creative Research Systems (US). The Survey System. Sebastopol (CA); ©2012 [cited 2016 May 28]. Available from: <http://www.surveysystem.com/sscalc.htm>.
15. Pinho NA, Pierin AMG. Hypertension control in brazilian publications. *Arq Bras Cardiol*. 2013;101(3):e65-e73. doi: <https://doi.org/10.5935/abc.20130173>.
16. Malta DC, Stopa SR, Santos MAS, Andrade SSCA, Oliveira TP, Cristo EB, et al. Evolution of tobacco use indicators according to telephone surveys, 2006-2014. *Cad Saúde Pública*. 2017;33(Supl 3):162-73. doi: <https://doi.org/10.1590/0102-311x00134915>.
17. Ministério da Saúde (BR), Agência Nacional de Saúde Suplementar. *Vigilante Brasil 2014 Saúde Suplementar: vigilância de fatores de risco e proteção para doenças crônicas por inquérito telefônico*. Brasília: Ministério da Saúde, 2015 [cited 2016 Nov 07]. Available from: http://www.ans.gov.br/images/stories/Materiais_para_pesquisa/Materiais_por_assunto/2014_vigilante.pdf.
18. Abegaz TM, Tefera YG, Abebe TB. Target organ damage and the long term effect of nonadherence to clinical practice guidelines in patients with hypertension: a retrospective cohort study. *Int J Hypertens*. 2017;2017:2637051. doi: <https://doi.org/10.1155/2017/2637051>.
19. Costa YF, Araújo OC, Almeida LBM, Viegas SMF. O papel educativo do enfermeiro na adesão ao tratamento da hipertensão arterial sistêmica: revisão integrativa da literatura. *Mundo Saúde*. 2014;38(4):473-81. doi: <https://doi.org/10.15343/0104-7809.20143804473481>.
20. Heidemann ITSB, Wosny AM, Boehs AE. Promoção da saúde na atenção básica: estudo baseado no método de Paulo Freire. *Cienc Saúde Coletiva*. 2014;19(8):3553-9. doi: <https://doi.org/10.1590/1413-81232014198.11342013>.

■ **Corresponding author:**

Luciane Paula Batista Araújo de Oliveira
E-mail: lucianepoliveira@yahoo.com.br

Received: 06.04.2018
Approved: 10.05.2018